GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: June 23, 2003, 15:03:51 ; Search time 70 Seconds
(without alignments)
350.259 Million cell updates/sec

Title: AAK91826
Perfect score: 965
Sequence: 1 MRRGPRSLRGRDAPAPTPCV.....ATELGSTELVTTKTAGPEQQ 184

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 908470 seqs, 133250620 residues

Total number of hits satisfying chosen parameters: 908470

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_101002:*
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22: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2001.DAT:*
23: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA2002.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	965	100.0	184	23	ABB81483	Human Ztnfr12 prot
2	965	100.0	266	23	AAE22243	Human JST576 (BAFF
3	954.5	98.9	185	23	AAE22242	Human mature JST57
4	947.5	98.2	185	23	AAE22270	Human BAFF recepto
5	946.5	98.1	185	23	AAE22271	Human BAFF recepto
6	943.5	97.8	185	23	AAE22268	Human BAFF recepto
7	939.5	97.4	185	23	AAE22269	Human BAFF recepto
8	935.5	96.9	185	23	AAE22267	Human BAFF recepto
9	928.5	96.2	185	23	AAE22266	Human BAFF recepto
10	410.5	42.5	175	23	ABB81489	Mouse Ztnfr12 prot
11	410.5	42.5	175	23	AAE22244	Murine BAFF recept
12	388	40.2	320	23	AAE22245	Murine IgG-kappa s
13	384	39.8	328	23	ABB81493	Ztnfr12-tcs-Fc5 fu
14	375	38.9	70	23	AAE22246	Human BAFF-R:Fc fu
15	368	38.1	70	23	AAE22258	Human BAFF-R:Fc cl
16	368	38.1	70	23	AAE22265	Human BAFF-R:Fc cl
17	367	38.0	70	23	AAE22264	Human BAFF-R:Fc cl
18	364	37.7	70	23	AAE22262	Human BAFF-R:Fc cl
19	363	37.6	70	23	AAE22260	Human BAFF-R:Fc cl
20	362	37.5	70	23	AAE22259	Human BAFF-R:Fc cl
21	361	37.4	70	23	AAE22255	Human BAFF-R:Fc cl
22	360	37.3	70	23	AAE22257	Human BAFF-R:Fc cl
23	360	37.3	70	23	AAE22263	Human BAFF-R:Fc cl
24	357	37.0	70	23	AAE22253	Human BAFF-R:Fc cl
25	356	36.9	70	23	AAE22256	Human BAFF-R:Fc cl
26	356	36.9	70	23	AAE22261	Human BAFF-R:Fc cl
27	353	36.6	70	23	AAE22254	Human BAFF-R:Fc cl
28	349	36.2	70	23	AAE22252	Human BAFF-R:Fc cl
29	337	34.9	73	23	AAE22248	Human BAFF-R:Fc cl
30	317	32.8	73	23	AAE22249	Human BAFF-R:Fc cl
31	291	30.2	73	23	AAE22250	Human BAFF-R:Fc cl
32	284	29.4	73	23	AAE22251	Human BAFF-R:Fc cl
33	142	14.7	65	23	AAE22247	Mouse BAFF-R:Fc fu
34	120.5	12.5	1023	23	AAU82954	Human homologue of
35	119	12.3	251	22	ABG21164	Novel human diagno
36	118.5	12.3	422	17	AAR87467	Glial growth facto
37	117	12.1	635	22	AAG92860	C glutamicum prote
38	116	12.0	863	21	AAB42952	Human ORFX ORF2716
39	113.5	11.8	248	15	AAR46912	GGF segment E. Ho
40	113.5	11.8	248	15	AAR55653	GGF segment E. Ho
41	113.5	11.8	248	17	AAW09358	Human glial growth
42	113.5	11.8	248	17	AAR96074	Human glial growth
43	113.5	11.8	248	17	AAR87445	Human glial growth
44	113.5	11.8	248	20	AAY26553	Human neuregulin G
45	113.5	11.8	422	15	AAR55654	GGF-II encoded by

ALIGNMENTS

RESULT 1
ABB81483
ID ABB81483 standard; Protein; 184 AA.
XX
AC ABB81483;
XX
DT 02-SEP-2002 (first entry)
XX
DE Human Ztnfr12 protein SEQ ID NO:2.
XX
KW Human; Ztnfr12; tumour necrosis factor receptor; cytostatic;
KW immunosuppressive; dermatological; antiinflammatory; antidiabetic;
KW neuroprotective; antirheumatic; antiarthritic; antiasthmatic;
KW nephrotropic; hypotensive; gene therapy; B lymphocyte; tumour;
KW autoimmune disorder; systemic lupus erythematosus; myasthenia gravis;
KW multiple sclerosis; insulin dependent diabetes mellitus; asthma;
KW rheumatoid arthritis; bronchitis; emphysema; renal disease; lymphoma;
KW glomerulonephritis; vasculitis; chronic lymphoid leukaemia; nephritis;
KW pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis;
KW light chain neuropathy; hypertension; large vessel disease;
KW graft-versus host disease; graft rejection; Crohn's disease;
KW chromosome 22q13.2.
XX
OS Homo sapiens.
XX
PN WO200238766-A2.
XX
PD 16-MAY-2002.
XX
PF 05-NOV-2001; 2001WO-US47018.
XX
PR 07-NOV-2000; 2000US-246449P.
PR 20-DEC-2000; 2000US-257131P.

PR 28-JUN-2001; 2001US-301715P.
PR 29-AUG-2001; 2001US-315565P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Gross JA, Xu W, Henne RM, Grant FJ;
XX
DR WPI; 2002-508212/54.
DR N-PSDB; ABN89426.
XX
PT Novel isolated human tumor necrosis factor receptor polypeptide, termed
PT Ztnfr 12, useful for treating autoimmune disorders, emphysema, end
PT stage renal failure or renal disease and lymphoma -
XX
PS Claim 3; Page 133; 154pp; English.
XX
CC The present sequence represents a human tumour necrosis factor receptor
CC designated Ztnfr12 (I). (I) has cytostatic, immunosuppressive,
CC dermatological, antiinflammatory, neuroprotective, antidiabetic,
antirheumatic, antiarthritic, antiasthmatic, nephrotropic and hypotensive
activities, and can be used in gene therapy. (I) can be used for
inhibiting, in a mammal, the activity of a ligand that binds Ztnfr12
CC (e.g. ZTNF4), for treating disorders and diseases associated with B
CC lymphocytes, activated B lymphocytes or resting B lymphocytes, and for
CC inhibiting the proliferation of tumour cells. (I) is useful for treating
CC autoimmune disorders such as systemic lupus erythematosus, myasthenia
CC gravis, multiple sclerosis, insulin dependent diabetes mellitus, asthma,
CC rheumatoid arthritis, bronchitis, emphysema and end stage renal failure
CC or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid
CC leukaemia, nephritis, and pyelonephritis, and for treating renal
CC neoplasms, multiple myelomas, lymphomas, light chain neuropathy, or
CC amyloidosis, hypertension, large vessel diseases, graft-versus host
CC disease, graft rejection and Crohn's disease. (I) is useful for
CC modulating the immune system, for regulating B cell responses and
CC development, for modulating development of other cells, antibody
CC production and cytokine production, and for modulating T and B cell
CC communication. Human Ztnfr12 is located to chromosome 22q13.2.
XX
SQ Sequence 184 AA;

Query Match 100.0%; Score 965; DB 23; Length 184;
Best Local Similarity 100.0%; Pred. No. 4e-74;
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 60
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Db          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 60

Qy         61 ESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDGD 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 ESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDGD 120

Qy        121 KDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 KDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAG 180

Qy        181 PEQQ 184
              ||||
Db        181 PEQQ 184
```

RESULT 2
AAE22243
ID AAE22243 standard; Protein; 266 AA.
XX
AC AAE22243;
XX
DT 25-JUL-2002 (first entry)
XX
DE Human JST576 (BAFF-R) cDNA spliced version encoded protein.
XX
KW Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW myasthenia gravis; hypertension; organ transplantation; drug screening;
KW HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW JST576.
XX
OS Homo sapiens.
XX
PN WO200224909-A2.
XX
PD 28-MAR-2002.
XX
PF 06-SEP-2001; 2001WO-US28006.
XX
PR 18-SEP-2000; 2000US-233152P.
PR 21-SEP-2000; 2000US-234140P.
PR 13-FEB-2001; 2001US-268499P.
PR 14-AUG-2001; 2001US-312185P.
XX
PA (BIOJ) BIOGEN INC.
XX
PI Ambrose CM, Thompson JS;
XX
DR WPI; 2002-362428/39.
DR N-PSDB; AAD35410.
XX
PT New human BAFF receptor proteins and nucleic acids, useful for
PT treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT inherited genetic disorders involving B-cells, cardiovascular
PT disorders, or renal disorders -
XX
PS Example 3; Fig 3; 164pp; English.
XX
CC The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC Necrosis Factor (TNF) family, which is associated with the expression of
CC B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC useful for treating, preventing or delaying autoimmune diseases, cancer,
CC tumourigenic conditions or inherited genetic disorders involving B-cells,
CC hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC disorders, inflammation, organ transplantation and HIV. Autoimmune
CC diseases, which can be treated or prevented by BAFF-R, include systemic
CC lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC monoclonal gammopathy of undetermined significance. The nucleic acids,
CC protein, protein homologues, and antibodies may further be used in
CC screening assays, in detection assays (chromosomal mapping, tissue typing
CC or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC are further useful as immunogens to raise anti-BFFR antibodies, or in
CC screening drugs or compounds that modulate BAFF-R activity or expression.
CC The present sequence is human mature JST576 (BAFF-R) cDNA spliced version
CC containing 5' UTR encoded protein.
XX
SQ Sequence 266 AA;

Query Match 100.0%; Score 965; DB 23; Length 266;
Best Local Similarity 100.0%; Pred. No. 6e-74;
Matches 184; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 60
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Db         83 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 142

Qy         61 ESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDGD 120
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Db        143 ESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDGD 202
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Qy        121 KDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAG 180
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Db        203 KDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAG 262

Qy        181 PEQQ 184
              ||||
Db        263 PEQQ 266
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RESULT 3
AAE22242
ID AAE22242 standard; Protein; 185 AA.
XX
AC AAE22242;
XX
DT 25-JUL-2002 (first entry)
XX
DE Human mature JST576 (BAFF-R) protein.
XX
KW Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW myasthenia gravis; hypertension; organ transplantation; drug screening;
KW HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW JST576.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 19..35
FT /note= "Four cysteine motif"
FT Misc-difference 49
FT /note= "Alternative splice acceptor site"
FT Region 72..100
FT /note= "Hydrophobic region"
FT Domain 73..100
FT /label= Transmembrane_domain
FT Region 105..108
FT /note= "Stop transfer signal"
XX
PN WO200224909-A2.
XX
PD 28-MAR-2002.
XX
PF 06-SEP-2001; 2001WO-US28006.

18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
PR 13-FEB-2001; 2001US-268499P.
PR 14-AUG-2001; 2001US-312185P.
XX
PA (BIOJ) BIOGEN INC.
XX
PI Ambrose CM, Thompson JS;
XX
DR WPI; 2002-362428/39.
DR N-PSDB; AAD35409.
XX
PT New human BAFF receptor proteins and nucleic acids, useful for
PT treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT inherited genetic disorders involving B-cells, cardiovascular
PT disorders, or renal disorders -
XX
PS Claim 1; Fig 2d; 164pp; English.
XX
CC The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC Necrosis Factor (TNF) family, which is associated with the expression of
CC B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC useful for treating, preventing or delaying autoimmune diseases, cancer,
CC tumourigenic conditions or inherited genetic disorders involving B-cells,
CC hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC disorders, inflammation, organ transplantation and HIV. Autoimmune
CC diseases, which can be treated or prevented by BAFF-R, include systemic
CC lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC monoclonal gammopathy of undetermined significance. The nucleic acids,
CC protein, protein homologues, and antibodies may further be used in
CC screening assays, in detection assays (chromosomal mapping, tissue typing
CC or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC are further useful as immunogens to raise anti-BFFR antibodies, or in
CC screening drugs or compounds that modulate BAFF-R activity or expression.
CC The present sequence is human mature JST576 (BAFF-R) protein.
XX
SQ Sequence 185 AA;

Query Match 98.9%; Score 954.5; DB 23; Length 185;
Best Local Similarity 99.5%; Pred. No. 3.1e-73;
Matches 184; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

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Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
              ||||||||||||||||||||||||||||||||||||||||||||||| ||||||||||||
Db          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

Qy         60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
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Db         61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy        120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
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Db        121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy        180 GPEQQ 184
              |||||
Db        181 GPEQQ 185
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RESULT 4
AAE22270
ID AAE22270 standard; Protein; 185 AA.
XX
AC AAE22270;
XX
DT 25-JUL-2002 (first entry)
XX
DE Human BAFF receptor (BAFF-R) mutant, V20N.
XX
KW Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW myasthenia gravis; hypertension; organ transplantation; drug screening;
KW HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW mutant; mutein.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 20
FT /note= "Wild type Val substituted with Asn"
XX
PN WO200224909-A2.
XX
PD 28-MAR-2002.
XX
PF 06-SEP-2001; 2001WO-US28006.
XX
PR 18-SEP-2000; 2000US-233152P.

```
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders  -
XX
PS   Example 17; Page -; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is human BAFF-R protein mutant.
CC   Note: The present sequence is not shown in the specification but is
CC   derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown
CC   in fig 2d of the specification.
XX
SQ   Sequence   185 AA;

  Query Match             98.2%;  Score 947.5;  DB 23;  Length 185;
  Best Local Similarity   98.9%;  Pred. No. 1.2e-72;
  Matches  183;  Conservative    0;  Mismatches    1;  Indels    1;  Gaps    1;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
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Db          1 MRRGPRSLRGRDAPAPTPCNPAECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

Qy         60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy        120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
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Db        121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy        180 GPEQQ 184
              |||||
Db        181 GPEQQ 185


RESULT 5
AAE22271
ID   AAE22271 standard; Protein; 185 AA.
XX
AC   AAE22271;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Human BAFF receptor (BAFF-R) mutant, P21Q.
XX
KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   mutant; mutein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 21
FT                   /note= "Wild type Pro substituted with Gln"
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders  -
XX
PS   Example 17; Page -; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is human BAFF-R protein mutant.
CC   Note: The present sequence is not shown in the specification but is
CC   derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown
CC   in fig 2d of the specification.
XX
SQ   Sequence   185 AA;

  Query Match             98.1%;  Score 946.5;  DB 23;  Length 185;
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  Best Local Similarity   98.9%;  Pred. No. 1.5e-72;
  Matches  183;  Conservative    0;  Mismatches    1;  Indels    1;  Gaps    1;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
              |||||||||||||||||||| |||||||||||||||||||||||| ||||||||||||
Db          1 MRRGPRSLRGRDAPAPTPCVQAECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

Qy         60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy        120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy        180 GPEQQ 184
              |||||
Db        181 GPEQQ 185
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```
ULT 6
E22268
ID   AAE22268 standard; Protein; 185 AA.
XX
AC   AAE22268;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Human BAFF receptor (BAFF-R) mutant, V20N/A22T.
XX
KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   mutant; mutein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 20
FT                   /note= "Wild type Val substituted with Asn"
FT   Misc-difference 22
FT                   /note= "Wild type Ala substituted with Thr"
XX
     WO200224909-A2.

     28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders  -
XX
PS   Example 17; Page -; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is human BAFF-R protein mutant.
CC   Note: The present sequence is not shown in the specification but is
CC   derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown
CC   in fig 2d of the specification.
XX
SQ   Sequence   185 AA;
```

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  Query Match            97.8%;  Score 943.5;  DB 23;  Length 185;
  Best Local Similarity   98.4%;  Pred. No. 2.7e-72;
  Matches  182;  Conservative    0;  Mismatches    2;  Indels    1;  Gaps    1;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
              |||||||||||||||||||| | |||||||||||||||||||||||| ||||||||||||
Db          1 MRRGPRSLRGRDAPAPTPCNPTECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

Qy         60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy        120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy        180 GPEQQ 184
              |||||
Db        181 GPEQQ 185
```

```
RESULT 7
AAE22269
ID   AAE22269 standard; Protein; 185 AA.
XX
AC   AAE22269;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Human BAFF receptor (BAFF-R) mutant, V20N/P21Q.
XX
KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   mutant; mutein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 20
FT                   /note= "Wild type Val substituted with Asn"
FT   Misc-difference 21
```

```
FT                   /note= "Wild type Pro substituted with Gln"
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders  -
XX
PS   Example 17; Page -; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is human BAFF-R protein mutant.
CC   Note: The present sequence is not shown in the specification but is
CC   derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown
CC   in fig 2d of the specification.
XX
SQ   Sequence   185 AA;

  Query Match             97.4%;  Score 939.5;  DB 23;  Length 185;
  Best Local Similarity   98.4%;  Pred. No. 5.8e-72;
  Matches  182;  Conservative    0;  Mismatches    2;  Indels    1;  Gaps    1;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
              |||||||||||||||||  |||||||||||||||||||||||| ||||||||||||
Db          1 MRRGPRSLRGRDAPAPTPCNQAECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

Qy         60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy        120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy        180 GPEQQ 184
              |||||
Db        181 GPEQQ 185


RESULT 8
AAE22267
ID   AAE22267 standard; Protein; 185 AA.
XX
AC   AAE22267;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Human BAFF receptor (BAFF-R) mutant, V20N/P21Q/A22T.
XX
KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   mutant; mutein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 20
FT                   /note= "Wild type Val substituted with Asn"
FT   Misc-difference 21
FT                   /note= "Wild type Pro substituted with Gln"
FT   Misc-difference 22
FT                   /note= "Wild type Ala substituted with Thr"
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders  -
XX
PS   Example 17; Page -; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
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CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is human BAFP-R protein mutant.
CC   Note: The present sequence is not shown in the specification but is
CC   derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown
CC   in fig 2d of the specification.
XX
SQ   Sequence   185 AA;

  Query Match             96.9%;  Score 935.5;  DB 23;  Length 185;
  Best Local Similarity   97.8%;  Pred. No. 1.3e-71;
  Matches  181;  Conservative    0;  Mismatches    3;  Indels    1;  Gaps    1;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
              ||||||||||||||||||   |||||||||||||||||||||||| ||||||||||||
Db          1 MRRGPRSLRGRDAPAPTPCNQTECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

            60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy         120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy         180 GPEQQ 184
               |||||
Db         181 GPEQQ 185


RESULT 9
AAE22266
ID   AAE22266 standard; Protein; 185 AA.
XX
AC   AAE22266;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Human BAFF receptor (BAFF-R) mutant, V20N/P21Q/A22T/L27P.
XX
KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
     renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
     haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
     multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   mutant; mutein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 20
FT                   /note= "Wild type Val substituted with Asn"
FT   Misc-difference 21
FT                   /note= "Wild type Pro substituted with Gln"
FT   Misc-difference 22
FT                   /note= "Wild type Ala substituted with Thr"
FT   Misc-difference 27
FT                   /note= "Wild type Leu substituted with Pro"
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders -
XX
PS   Example 17; Page -; 164pp; English.
XX
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CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
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CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
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CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is human BAFF-R protein mutant.
CC   Note: The present sequence is not shown in the specification but is
CC   derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown
CC   in fig 2d of the specification.
XX
SQ   Sequence   185 AA;

  Query Match             96.2%;  Score 928.5;  DB 23;  Length 185;
  Best Local Similarity   97.3%;  Pred. No. 5e-71;
  Matches  180;  Conservative    0;  Mismatches    4;  Indels    1;  Gaps    1;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP 59
              ||||||||||||||||||   |||| ||||||||||||||||||| ||||||||||||
Db          1 MRRGPRSLRGRDAPAPTPCNQTECFDPLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP 60

Qy         60 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 119
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG 120

Qy        120 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 180

Qy        180 GPEQQ 184
               |||||
Db        181 GPEQQ 185


RESULT 10
ABB81489
ID   ABB81489 standard; Protein; 175 AA.
XX
AC   ABB81489;
XX
DT   02-SEP-2002  (first entry)
XX
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DE   Mouse Ztnfr12 protein SEQ ID NO:13.
XX
KW   Human; Ztnfr12; tumour necrosis factor receptor; cytostatic;
KW   immunosuppressive; dermatological; antiinflammatory; antidiabetic;
KW   neuroprotective; antirheumatic; antiarthritic; antiasthmatic;
KW   nephrotropic; hypotensive; gene therapy; B lymphocyte; tumour;
KW   autoimmune disorder; systemic lupus erythematosus; myasthenia gravis;
KW   multiple sclerosis; insulin dependent diabetes mellitus; asthma;
KW   rheumatoid arthritis; bronchitis; emphysema; renal disease; lymphoma;
KW   glomerulonephritis; vasculitis; chronic lymphoid leukaemia; nephritis;
KW   pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis;
KW   light chain neuropathy; hypertension; large vessel disease;
KW   graft-versus host disease; graft rejection; Crohn's disease.
XX
OS   Mus sp.
XX
PN   WO200238766-A2.
XX
PD   16-MAY-2002.
XX
PF   05-NOV-2001; 2001WO-US47018.
XX
PR   07-NOV-2000; 2000US-246449P.
PR   20-DEC-2000; 2000US-257131P.
PR   28-JUN-2001; 2001US-301715P.
PR   29-AUG-2001; 2001US-315565P.
XX
PA   (ZYMO ) ZYMOGENETICS INC.
XX
PI   Gross JA,  Xu W,  Henne RM,  Grant FJ;
XX
DR   WPI; 2002-508212/54.
DR   N-PSDB; ABN89431.
XX
PT   Novel isolated human tumor necrosis factor receptor polypeptide, termed
PT   Ztnfr 12, useful for treating autoimmune disorders, emphysema, end
PT   stage renal failure or renal disease and lymphoma  -
XX
PS   Disclosure; Page 140; 154pp; English.
XX
CC   The present invention describes a human tumour necrosis factor receptor
CC   designated Ztnfr12 (I). (I) has cytostatic, immunosuppressive,
CC   dermatological, antiinflammatory, neuroprotective, antidiabetic,
CC   antirheumatic, antiarthritic, antiasthmatic, nephrotropic and hypotensive
CC   activities, and can be used in gene therapy. (I) can be used for
CC   inhibiting, in a mammal, the activity of a ligand that binds Ztnfr12
CC   (e.g. ZTNF4), for treating disorders and diseases associated with B
CC   lymphocytes, activated B lymphocytes or resting B lymphocytes, and for
CC   inhibiting the proliferation of tumour cells. (I) is useful for treating
CC   autoimmune disorders such as systemic lupus erythematosus, myasthenia
CC   gravis, multiple sclerosis, insulin dependent diabetes mellitus, asthma,
CC   rheumatoid arthritis, bronchitis, emphysema and end stage renal failure
CC   or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid
CC   leukaemia, nephritis, and pyelonephritis, and for treating renal
CC   neoplasms, multiple myelomas, lymphomas, light chain neuropathy, or
CC   amyloidosis, hypertension, large vessel diseases, graft-versus host
CC   disease, graft rejection and Crohn's disease. (I) is useful for
CC   modulating the immune system, for regulating B cell responses and
CC   development, for modulating development of other cells, antibody
CC   production and cytokine production, and for modulating T and B cell
CC   communication. The present sequence represents mouse Ztnfr12 which is
CC   given in the exemplification of the present invention.
XX
SQ   Sequence   175 AA;

  Query Match             42.5%;  Score 410.5;  DB 23;  Length 175;
  Best Local Similarity   56.1%;  Pred. No. 3.4e-27;
  Matches  101;  Conservative    9;  Mismatches   55;  Indels   15;  Gaps    6;

Qy          6 RSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQESVGA 65
              || | ||:  || |   |||| |||:||:| |  |  |     ||  | |||||||
Db          9 RSQRSRDSSVPTQCNQTECFDPLVRNCVSCELFHT--PDTGHTSSLEPGTALQPQE---- 62

Qy         66 GAGEAALPLPGLLFGAPALLGLALVLALV-LVGLVSWRRRQRRLRGASSAEAPDGDKDA- 123
                | |  |   || |||||||| | | || || ||||| || :|| ||    ||  :
Db         63 --GSALRPDVALLVGAPALLGLILALTLVGLVSLVSWRWRQ-QLRTAS----PDTSEGVQ 115

Qy        124 PEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAGPEQ 183
               | |: | : |     |:|| |||  ||  :  | ||||||||||||||||||||||||
Db        116 QESLENVFVPSSETPHASAPTWPPLKEDADSALPRHSVPVPATELGSTELVTTKTAGPEQ 175


RESULT 11
AAE22244
ID   AAE22244 standard; Protein; 175 AA.
XX
AC   AAE22244;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Murine BAFF receptor (BAFF-R) protein.
XX
KW   Murine; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular; TNF;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening.
XX
OS   Mus musculus.
XX
FH   Key             Location/Qualifiers
FT   Domain          70..97
FT                   /label= Transmembrane_domain
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
DR   N-PSDB; AAD35411.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders  -
XX
PS   Example 4; Fig 4b; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
```

```
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is murine BAFF-R protein.
XX
SQ   Sequence   175 AA;

  Query Match             42.5%;  Score 410.5;  DB 23;  Length 175;
  Best Local Similarity   56.1%;  Pred. No. 3.4e-27;
  Matches  101;  Conservative    9;  Mismatches   55;  Indels   15;  Gaps    6;

Qy          6 RSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQESVGA 65
              || | ||:  || |   |||| |||:||:| |  |  |     ||  | ||||||||
Db          9 RSQRSRDSSVPTQCNQTECFDPLVRNCVSCELFHT--PDTGHTSSLEPGTALQPQE---- 62

Qy         66 GAGEAALPLPGLLFGAPALLGLALVLALV-LVGLVSWRRRQRRLRGASSAEAPDGDKDA- 123
                | |  |   || |||||||| | | || || ||||| || :|| ||    ||  :
Db         63 --GSALRPDVALLVGAPALLGLILALTLVGLVSLVSWRWRQ-QLRTAS----PDTSEGVQ 115

Qy        124 PEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAGPEQ 183
              | |: | : |     |:|| |||  ||  :  | ||||||||||||||||||||||||
Db        116 QESLENVFVPSSETPHASAPTWPPLKEDADSALPRHSVPVPATELGSTELVTTKTAGPEQ 175


RESULT 12
AAE22245
ID   AAE22245 standard; Protein; 320 AA.
XX
AC   AAE22245;
XX
DT   25-JUL-2002  (first entry)
XX
DE   Murine IgG-kappa signal sequence-human BAFF-R:Fc fusion protein.
XX
KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   murine; immunoglobulin G; IgG; fusion protein.
XX
     Chimeric - Homo sapiens.
     Chimeric - Mus musculus.

FH   Key             Location/Qualifiers
FT   Peptide         1..21
FT                   /label= Signal_peptide
FT                   /note= "Murine IgG-kappa signal sequence"
FT   Protein         22..320
FT                   /note= "Mature human BAFF-R:Fc protein"
FT   Misc-difference 22
FT                   /note= "Encoded by region introducing restriction site"
FT   Domain          23..92
FT                   /note= "Human BAFF-R extracellular domain"
FT   Misc-difference 93
FT                   /note= "Encoded by region introducing restriction site"
FT   Region          94..320
FT                   /note= "Human IgG1 Fc region"
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;
XX
DR   WPI; 2002-362428/39.
DR   N-PSDB; AAD35412.
XX
PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders -
XX
PS   Example 9; Fig 9; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present sequence is a fusion protein containing murine IgG-kappa
CC   signal sequence linked to human BAFF-R and human immunoglobulin G (IgG)
CC   Fc region.
XX
SQ   Sequence   320 AA;

  Query Match             40.2%;  Score 388;  DB 23;  Length 320;
  Best Local Similarity   82.8%;  Pred. No. 5.2e-25;
  Matches   77;  Conservative    2;  Mismatches    2;  Indels   12;  Gaps    2;

Qy          1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 60
              :||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         22 VRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 81

Qy         61 ESVGAGAGEAAL-------PLPGLLFGAPALLG 86
              ||||||||||:       | |     || |||
Db         82 ESVGAGAGEAAVDKTHTCPPCP-----APELLG 109


RESULT 13
ABB81493
ID   ABB81493 standard; Protein; 328 AA.
XX
AC   ABB81493;
XX
DT   02-SEP-2002  (first entry)
XX
DE   Ztnfr12-tcs-Fc5 fusion protein SEQ ID NO:42.
XX
KW   Human; Ztnfr12; tumour necrosis factor receptor; cytostatic;
KW   immunosuppressive; dermatological; antiinflammatory; antidiabetic;
KW   neuroprotective; antirheumatic; antiarthritic; antiasthmatic;
KW   nephrotropic; hypotensive; gene therapy; B lymphocyte; tumour;
KW   autoimmune disorder; systemic lupus erythematosus; myasthenia gravis;
```

KW multiple sclerosis; insulin dependent diabetes mellitus; asthma;
KW rheumatoid arthritis; bronchitis; emphysema; renal disease; lymphoma;
KW glomerulonephritis; vasculitis; chronic lymphoid leukaemia; nephritis;
KW pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis;
KW light chain neuropathy; hypertension; large vessel disease;
KW graft-versus host disease; graft rejection; Crohn's disease.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200238766-A2.
XX
PD 16-MAY-2002.
XX
PF 05-NOV-2001; 2001WO-US47018.
XX
PR 07-NOV-2000; 2000US-246449P.
PR 20-DEC-2000; 2000US-257131P.
PR 28-JUN-2001; 2001US-301715P.
PR 29-AUG-2001; 2001US-315565P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Gross JA, Xu W, Henne RM, Grant FJ;
XX
DR WPI; 2002-508212/54.
DR N-PSDB; ABN89456.
XX
PT Novel isolated human tumor necrosis factor receptor polypeptide, termed
PT Ztnfr 12, useful for treating autoimmune disorders, emphysema, end
PT stage renal failure or renal disease and lymphoma -
XX
PS Example 4; Page 152; 154pp; English.
XX
CC The present invention describes a human tumour necrosis factor receptor
CC designated Ztnfr12 (I). (I) has cytostatic, immunosuppressive,
CC dermatological, antiinflammatory, neuroprotective, antidiabetic,
CC antirheumatic, antiarthritic, antiasthmatic, nephrotropic and hypotensive
CC activities, and can be used in gene therapy. (I) can be used for
CC inhibiting, in a mammal, the activity of a ligand that binds Ztnfr12
CC (e.g. ZTNF4), for treating disorders and diseases associated with B
CC lymphocytes, activated B lymphocytes or resting B lymphocytes, and for
CC inhibiting the proliferation of tumour cells. (I) is useful for treating
CC autoimmune disorders such as systemic lupus erythematosus, myasthenia
CC gravis, multiple sclerosis, insulin dependent diabetes mellitus, asthma,
CC rheumatoid arthritis, bronchitis, emphysema and end stage renal failure
CC or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid
CC leukaemia, nephritis, and pyelonephritis, and for treating renal
CC neoplasms, multiple myelomas, lymphomas, light chain neuropathy, or
CC amyloidosis, hypertension, large vessel diseases, graft-versus host
CC disease, graft rejection and Crohn's disease. (I) is useful for
CC modulating the immune system, for regulating B cell responses and
CC development, for modulating development of other cells, antibody
CC production and cytokine production, and for modulating T and B cell
CC communication. Human Ztnfr12 is located to chromosome 22q13.2. The
CC present sequence represents a Ztnfr12-tcs-Fc5 fusion protein, which is
CC used in an example from the present invention.
XX
SQ Sequence 328 AA;

Query Match 39.8%; Score 384; DB 23; Length 328;
Best Local Similarity 100.0%; Pred. No. 1.2e-24;
Matches 72; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 60
||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 20 MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ 79

Qy 61 ESVGAGAGEAAL 72
||||||||||||
Db 80 ESVGAGAGEAAL 91

RESULT 14
AAE22246
ID AAE22246 standard; Protein; 70 AA.
XX
AC AAE22246;
XX
DT 25-JUL-2002 (first entry)
XX
DE Human BAFF-R:Fc fusion protein.
XX
KW Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW myasthenia gravis; hypertension; organ transplantation; drug screening;
KW HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW IgG; immunoglobulin G; fusion protein.
XX
OS Homo sapiens.
XX
PN WO200224909-A2.
XX
PD 28-MAR-2002.
XX
PF 06-SEP-2001; 2001WO-US28006.
XX
PR 18-SEP-2000; 2000US-233152P.
PR 21-SEP-2000; 2000US-234140P.
PR 13-FEB-2001; 2001US-268499P.
PR 14-AUG-2001; 2001US-312185P.
XX
PA (BIOJ) BIOGEN INC.
XX
PI Ambrose CM, Thompson JS;
XX
DR WPI; 2002-362428/39.
XX
PT New human BAFF receptor proteins and nucleic acids, useful for
PT treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT inherited genetic disorders involving B-cells, cardiovascular
PT disorders, or renal disorders -
XX
PS Claim 44; Fig 20; 164pp; English.
XX
CC The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC Necrosis Factor (TNF) family, which is associated with the expression of
CC B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC useful for treating, preventing or delaying autoimmune diseases, cancer,
CC tumourigenic conditions or inherited genetic disorders involving B-cells,
CC hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC disorders, inflammation, organ transplantation and HIV. Autoimmune
CC diseases, which can be treated or prevented by BAFF-R, include systemic
CC lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC monoclonal gammopathy of undetermined significance. The nucleic acids,
CC protein, protein homologues, and antibodies may further be used in
CC screening assays, in detection assays (chromosomal mapping, tissue typing
CC or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC are further useful as immunogens to raise anti-BFFR antibodies, or in
CC screening drugs or compounds that modulate BAFF-R activity or expression.
CC The present protein sequence is human BAFF-R:immunoglobulin G Fc region
CC fusion protein.
XX
SQ Sequence 70 AA;

Query Match 38.9%; Score 375; DB 23; Length 70;

```
  Best Local Similarity   100.0%;  Pred. No. 1.3e-24;
  Matches   70;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 RRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQE 61
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 RRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQE 60

Qy         62 SVGAGAGEAA 71
              ||||||||||
Db         61 SVGAGAGEAA 70


RESULT 15
AAE22258
ID   AAE22258 standard; Protein; 70 AA.
XX
AC   AAE22258;
XX
DT   25-JUL-2002  (first entry)

     Human BAFF-R:Fc clone fusion protein, JST671.

KW   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
KW   Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
KW   myasthenia gravis; hypertension; organ transplantation; drug screening;
KW   HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
KW   renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
KW   haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis;
KW   multiple myeloma; chromosomal mapping; tissue typing; drug screening;
KW   IgG; immunoglobulin G; fusion protein.
XX
OS   Homo sapiens.
XX
PN   WO200224909-A2.
XX
PD   28-MAR-2002.
XX
PF   06-SEP-2001; 2001WO-US28006.
XX
PR   18-SEP-2000; 2000US-233152P.
PR   21-SEP-2000; 2000US-234140P.
PR   13-FEB-2001; 2001US-268499P.
PR   14-AUG-2001; 2001US-312185P.
XX
PA   (BIOJ ) BIOGEN INC.
XX
PI   Ambrose CM,  Thompson JS;

     WPI; 2002-362428/39.

PT   New human BAFF receptor proteins and nucleic acids, useful for
PT   treating, preventing or delaying e.g. autoimmune diseases, cancers,
PT   inherited genetic disorders involving B-cells, cardiovascular
PT   disorders, or renal disorders -
XX
PS   Claim 44; Fig 20; 164pp; English.
XX
CC   The invention relates to human BAFF receptor (BAFF-R) nucleic acids and
CC   proteins. BAFF-R is a B-cell activating factor belonging to the Tumour
CC   Necrosis Factor (TNF) family, which is associated with the expression of
CC   B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
CC   useful for treating, preventing or delaying autoimmune diseases, cancer,
CC   tumourigenic conditions or inherited genetic disorders involving B-cells,
CC   hypertension, cardiovascular disorders, immunosuppressive diseases, renal
CC   disorders, inflammation, organ transplantation and HIV. Autoimmune
CC   diseases, which can be treated or prevented by BAFF-R, include systemic
CC   lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
CC   haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
CC   Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis,
CC   poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma
CC   cells disorders e.g., multiple myeloma, Waldenstrom's,macroglobulinaemia,
CC   heavy-chain disease, primary or immunocyte-associated amyloidosis, and
CC   monoclonal gammopathy of undetermined significance. The nucleic acids,
CC   protein, protein homologues, and antibodies may further be used in
CC   screening assays, in detection assays (chromosomal mapping, tissue typing
CC   or forensic biology), predictive medicine (e.g. diagnostic or prognostic
CC   assays, monitoring clinical trials, or pharmacogenomic). The polypeptides
CC   are further useful as immunogens to raise anti-BFFR antibodies, or in
CC   screening drugs or compounds that modulate BAFF-R activity or expression.
CC   The present protein sequence is human BAFF-R:immunoglobulin G Fc region
CC   clone fusion protein.
XX
SQ   Sequence   70 AA;

  Query Match           38.1%;  Score 368;  DB 23;  Length 70;
  Best Local Similarity   98.6%;  Pred. No. 4.9e-24;
  Matches   69;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          2 RRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQE 61
              |||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db          1 RRGPRSLRGRDAPAPTPCVPAECFDPLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQE 60

Qy         62 SVGAGAGEAA 71
              ||||||||||
Db         61 SVGAGAGEAA 70


Search completed: June 23, 2003, 15:13:49
Job time : 78 secs
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